

CLAIMS

What is claimed is:

- 5 1. A cable comprising:
 - a conductive core; and
 - an optic fiber located longitudinally inside the cable;
 - wherein the optic fiber can form an attachment with a measuring means.
- 10 2. The cable of claim 1,
 - wherein the optic fiber is located in an interstice of the cable.
3. The cable of claim 1,
 - wherein the optic fiber replaces a part of the conductive core.
- 15 4. The cable of claim 1,
 - wherein the optic fiber is placed on the conductive core.
5. A cable system comprising:
 - the cable of claim 1; and
 - a means for measuring the temperature of the optic fiber.
- 20 6. A method for determining a thermal acceptance of a conductive cable, comprising:
 - making a cable having an optic fiber longitudinally arranged inside the cable;

attaching the cable to an electrical system;
measuring the temperature of the optic fiber.

7. A method to rate a circuit, comprising:

5 placing the cable of claim 1 into the circuit;
determining a rating for a new conductive cable.

8. The method according to claim 7, wherein the circuit located in a duct.

10 9. The method according to claim 7, wherein the circuit is an overhead transmission
cable.

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